

What is claimed is:

1. A radiation detection device comprising a barium chloride ( $\text{BaCl}_2$ ) crystal as a scintillator and a photomultiplier tube to receive the light from the scintillator wherein the wavelength of the light emitted from the scintillator is between 250 nm and 350 nm
- 5 and the scintillator is located in a low humidity atmosphere.
2. The radiation detector as in claim 1 wherein the barium chloride crystal as a scintillator is cooled.
3. The radiation detection device as in claim 1 or 2 wherein the device is used to detect gamma rays.